



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/893,880	06/29/2001	Andrew Liu	3313-0347P-SP	6566
2292	7590	08/12/2004	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			VIEAUX, GARY	
			ART UNIT	PAPER NUMBER
			2612	3

DATE MAILED: 08/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/893,880

Applicant(s)

LIU, ANDREW

Examiner

Gary C. Vieaux

Art Unit

2612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

The title of the invention is not descriptive. A new title is required that is clearly
5 indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all
obviousness rejections set forth in this Office action:

10 (a) A patent may not be obtained though the invention is not identically disclosed or described as set
forth in section 102 of this title, if the differences between the subject matter sought to be patented and
the prior art are such that the subject matter as a whole would have been obvious at the time the
invention was made to a person having ordinary skill in the art to which said subject matter pertains.
Patentability shall not be negated by the manner in which the invention was made.

15 **Claims 1 and 5** are rejected under 35 U.S.C. 103(a) as being unpatentable over
Steinberg (US #6,750,902) in view of Gasper (US #5,781,815.)

Regarding claim 1, Steinberg teaches a portable expansion apparatus for a
digital camera, comprising: a body having a wireless communication means located
20 therein (fig. 1 indicator 44); and a signal connection cable having one end electrically
connecting to the wireless communication means (fig. 1 indicator 22); wherein the
apparatus plugs the end of the signal connection cable to a signal jack located in the
digital camera (fig. 1 indicator 24) that links to a memory unit of the digital camera such
that images stored in the memory unit is capable of being transmitted through the signal
25 connection cable to the wireless communication means and from the wireless
communication means to other wireless communication enabled devices (fig. 1, col. 5

Art Unit: 2612

lines 10-17; col.11 lines 6-23.) Steinberg does not teach attaching the apparatus by means of a screw mounted on the outer surface of the body for engaging with a screw bore located at the bottom side of the digital camera; wherein the apparatus is assembled to the digital camera through engaging the screw with the screw bore of the

5 camera. When faced with the problem of attaching this apparatus to a camera, one would look to the solutions of others faced with problems relating to the attachment of an apparatus to a camera. One such solution is by employing the use of pre-existing attachment opportunities, for example the tripod socket. Gasper (US #5,718,815) teaches a portable expansion apparatus attached by means of a screw mounted on the
10 outer surface of the body (fig. 1 indicator 32) for engaging with a screw bore located at the bottom side of the digital camera (fig. 1 indicators 12 and 14); wherein the apparatus is assembled to the digital camera through engaging the screw with the screw bore of the camera (fig. 2.) It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the method of attachment for a portable
15 expansion apparatus as taught by Gasper, with the portable expansion apparatus as taught by Steinberg. One of ordinary skill in the art at the time the invention was made would have been motivated to attach the portable expansion apparatus with a screw in conjunction with a screw bore on the bottom of a camera as a means of securely fastening the apparatus directly to the camera.

20 Regarding claim 5, Steinberg and Gasper teach all of the limitations of claim 5 (see the 103 rejection to claim 1 supra) including teaching a portable expansion

Art Unit: 2612

apparatus wherein the signal connection cable is Universal Serial Bus (USB) (fig. 1 and fig. 6 indicator 170, col. 7 lines 39-60.)

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Steinberg

5 (US #6,750,902 and Gasper (US #5,781,815) in view of Squilla et al. (US #6,078,756.)

Regarding claim 6, Steinberg and Gasper teach all of the limitations of claim 6 (see the 103 rejection to claim 1 supra) except for a direct teaching wherein the signal connection cable is Recommended Standard-232 (RS-232). However, Steinberg does teach the use of serial ports, SCSI ports, IrDa ports, parallel ports, and USB ports (fig. 6
10 indicators 154, 158, 162, 166, and 170, respectively; col. 7 lines 39-43.) (Examiner notes that RS-232 is a serial connection, and therefore may be interpreted to fit within the spirit of serial ports as provided by Steinberg (col. 7 lines 39-41).) Nevertheless, Squilla teaches the signal connection of a camera and a portable expansion apparatus fastened to the camera, by means of a Recommended Standard-232 (RS-232) signal
15 connection cable (col. 4 lines 44-50.) It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ an RS-232 signal connection cable to connect a camera and a portable expansion apparatus as taught by Squilla, when connecting the camera and portable expansion apparatus as taught by Steinberg and Gasper. One of ordinary skill in the art at the time the invention was made would
20 have been motivated to use an RS-232 signal connection cable as a means to transmit data to or from a camera having RS-232 communication port(s).

Art Unit: 2612

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Steinberg and Gasper as applied to claim 1 above, in view of Maruichi et al. (US #5,469,211) and further in view of Mizoguchi et al. (US #5,959,669.)

Regarding claim 2, Steinberg and Gasper teach all of the limitations of claim 2

5 (see the 103 rejection to claim 1 supra) except a teaching for the portable expansion apparatus further having a power supply cable and the body having a housing chamber formed inside thereof and a lid, the chamber having at least a pair of electric contacts located at two ends thereof for electrically connecting with the power supply cable, the lid being located at one side of the body and having one edge pivotally engaged with

10 the body for opening the chamber such that the chamber is capable of housing a battery therein to connect electrically with the electric contacts to provide the digital camera electric power supply needed when the power supply cable is plugged to a power jack located in the digital camera. However, Gasper does teach a portable expansion apparatus with a body having a housing chamber formed inside thereof and a lid ('815

15 fig. 1 indicators 18, 34, and 38), the lid being located at one side of the body and having one edge pivotally engaged with the body for opening the chamber ('815 fig. 1; col. 1 lines 52-57.) It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a housing chamber formed inside thereof and a lid as taught by Gasper, with the portable expansion apparatus as taught by Steinberg and

20 Gasper. One of ordinary skill in the art at the time the invention was made would have been motivated to do so in order to house the interior workings of the portable expansion apparatus and therefore protect them from the outside elements or from

Art Unit: 2612

unwanted or unwarranted direct access, while still allowing for access to said interior workings for maintenance or replacement of components. Maruichi teaches a portable expansion apparatus for a camera, which includes the combination of a wireless communication device (fig. 1 indicator 10), a removable camera battery power supply used to provide the camera electric power (fig. 1 indicator 20), and terminals and cable for connection of each to the camera (fig. 1 indicator 16 and indicators 6,7 and 18,19, respectively.) It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ a multi-use portable expansion apparatus which included a battery power supply as taught by Maruichi, with the portable expansion apparatus having wireless communication means as taught by Steinberg and Gasper. One of ordinary skill in the art at the time the invention was made would have been motivated to combine more than one device into a portable expansion apparatus in order to expand the potential functionality and usefulness of the apparatus, and/or to provide power to an expansion apparatus device as well as the associated camera (col. 1 lines 60-65.) It would also have been obvious to one of ordinary skill in the art at the time the invention was made to include the battery as taught by Maruichi, within the lidded housing chamber of the portable expansion apparatus as taught by Steinberg and Gasper. One of ordinary skill in the art at the time the invention was made would have been motivated to include the battery within the housing chamber and its associated lid, in order to protect the battery from the outside elements or from unwanted or unwarranted direct access, while still allowing for access to the chamber interior for maintenance or replacement of the battery. Further, Mizoguchi teaches a

Art Unit: 2612

digital camera with batteries in a removable power supply unit, the body having a housing chamber formed inside thereof (fig. 1 indicator 9, col. 6 lines 17-20), the chamber having at least a pair of electric contacts located at two ends (fig. 2(a), col. 6 lines 24-42) and being capable of housing a battery therein to connect electrically with the electric contacts to provide the digital camera electric power supply needed when connected (fig. 1 indicators 9a and 9b, col. 6 lines 47-49.) It would have been obvious at the time the invention was made to include an accessible battery power source with the associated electrical contacts as taught by Mizoguchi, within the housing of the portable expansion apparatus as taught by Steinberg, Gasper and Maruichi. One of ordinary skill in the art at the time the invention was made would have been motivated to include this configuration to provide the camera with an easily accessible and replaceable power source which included the necessary electrical contacts to incorporate the battery with the portable expansion apparatus. Finally, both Steinberg and Maruichi teach the use of cables ('902 fig. 1 indicator 22; '211 indicator 16) for electrically connecting expansion units to jacks located in the camera ('902 fig. 1; '211 col. 3 lines 24-28.) It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the method of connecting a portable expansion apparatus to a camera through the use of cables to jacks located in the camera as taught by both Steinberg and Maruichi, as the method of electrically connecting a camera to the power supplying battery via the associated electrical contacts of a portable expansion apparatus as taught by Steinberg, Gasper, Maruichi and Mizoguchi. One of ordinary skill in the art at the time the invention was made would have been

Art Unit: 2612

motivated to use a cable to connect the electrical contacts of the battery in a portable expansion apparatus to a jack located in the camera in order to remain consistent with the approach being employed for other connections to the camera, as well as to provide a connection which can be made or can be continued despite the body of the portable expansion apparatus not necessarily being engaged to the camera.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Steinberg, Gasper, Maruichi, and Mizoguchi in view of Iida et al. (US #4,862,280.)

Regarding claim 3, Steinberg, Gasper, Maruichi, and Mizoguchi teach all of the limitations of claim 3 (see the 103 rejection to claim 2 supra) except teaching a portable expansion apparatus wherein the body further has a notch for engaging with a mating bulged lug located on the lid. However, it is noted that Gasper teaches the lid of a portable expansion apparatus being held by a latch (col. 1 lines 56-57) and Maruichi teaches a portable expansion apparatus being attached by recesses and accompanying arresting portions (fig. 1 indicators 5a, 5b and 10a, 10 b; col. 2 lines 51-58.) When faced with the problem of fastening a camera related pivotally engaged lid, one would look to the solutions of others faced with problems relating to the fastening of camera related pivotally engaged lids. One such solution is presented by Iida in the fastening of a camera lid. Iida teaches a camera wherein the body has a notch (fig. 1 indicator 330b) for engaging with a mating bulged lug located on the lid (fig. 1 330b.) It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a notch in the body and a bulged lug in the lid as taught by Iida, with the portable

Art Unit: 2612

expansion apparatus as taught by Steinberg, Gasper, Maruichi and Mizoguchi. One of ordinary skill in the art at the time the invention was made would have been motivated to use a notch in the body and a mating bulged lug located on the lid as a way to fasten the lid of the portable expansion apparatus, therefore protecting the interior contents of the chamber from the outside elements or from unwanted or unwarranted direct access, while still allowing for access to the chamber interior for maintenance or replacement of components.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Morikawa et al. (US #5,822,001) discloses a similar lid locking mechanism.

Koyama et al. (US #5,689,172) discloses a battery expansion apparatus.

Tullis (US #6,535,243) discloses a wireless handheld digital camera.

Hashimoto et al. (US #5,815,205) discloses an external communication interface for a digital camera.

Fukuoka (US #5,754,227) discloses an external input/output interface to transfer images and sound between the camera and an external device.

Allen et al. (US #5,737,491) discloses wireless transmission of a digital image file to an image fulfillment center.

Sakai (US #5,231,501) discloses an interface expansion apparatus.

Art Unit: 2612

Mauro et al. (US #5,634,144) discloses wireless communication between a camera and a computer.

Yuyama et al. (US #5,825,408) discloses a removable modem coupled to an imaging apparatus to transmit image data.

5

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary C. Vieaux whose telephone number is 703-305-9573. The examiner can normally be reached on Monday - Friday, 8:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber can be reached on (703) 305-4929. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

20

Gcv2

Gary C. Vieaux
Examiner
Art Unit 2612


TUAN HO
PRIMARY EXAMINER